# **2004 UPDATE**

# Public Funding of Child-Care Services: Subsidy or Human Capital Investment?



Prepared for

# **City of San Antonio**

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## **Child Care Study Update**

Several years ago Texas Perspectives Inc. (TXP) was retained by the City of San Antonio to demonstrate that public assistance to lower-income families in obtaining child-care services is not simply justified on humanitarian grounds, but actually more than pays its own way through local economic stimulus and the resulting increased tax revenues to the City of San Antonio. The study and its results were predicated solely upon the direct and indirect earnings consequences of removing the child-care cost impediment to employment. TXP concluded that the City of San Antonio could expect to earn a simple annual return of well over 56 percent on public investment in child care. In other words, not only will the program cover its own incremental costs, but the community will realize 56 cents in additional tax revenue for each dollar directly expended on providing child-care to those cannot presently afford it. Building on the original study, TXP has been engaged by the City of San Antonio Department of Community Initiatives to update the initial findings.

Since the original TXP study was released, numerous other national studies have also found that public assistance for child care to lower-income families has positive social and economic benefits. According to a report published by the Urban Institute, *Getting Help with Child Care Expenses* (2003):

Child care can be very expensive, and employed parents with low or moderate incomes may find that they either need to get help in paying for it, or avoid paying for it at all. Getting help with child care expenses may broaden a family's choices in at least two ways. First, affordable child care increases parents' employment choices. If child care is more affordable, a single parent may be better able to remain off welfare, a parent in a two-parent family who has been staying at home may prefer to go back to work, and a parent with school-age children may choose to work a full day instead of only during school hours. Second, more affordable child care broadens parents' child care choices. Although the link between cost and quality is not direct, elements of high-quality child care - such as low student-to-teacher ratios - are expensive to provide. Thus, a family with help in paying for child care expenses may be able to afford a high-quality program that would otherwise have been out of reach financially.

Beyond the immediate positive economic impacts of increased earnings experienced by the parents, high-quality educational and child-care service for young children can generate long-term economic and social returns. For example, a recent article in *The New York Times* detailed the positive impact of the High/Scope Perry efforts – an Ypsilanti, Michigan program in the early 1960s focused on early learning – on long-term outcomes of the program's participants:

The power of education to level the playing field has long been an American article of faith...But that belief has been undermined by research findings -- seized on ever since by

### **UPDATE – Public Funding of Child-Care Services**

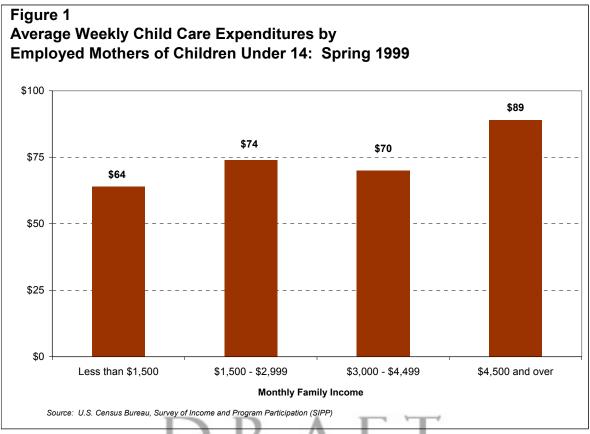
skeptics -- that federal programs like Head Start, designed to benefit poor children, actually have little long-term impact.

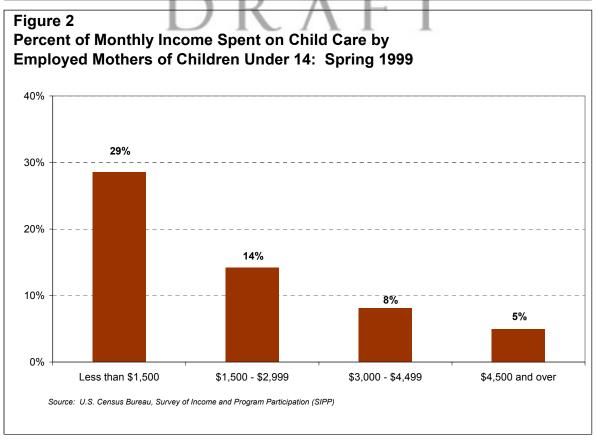
Now evidence from an experiment that has lasted nearly four decades may revive Horace Mann's faith. "Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40," was released earlier this week. It shows that an innovative early education program can make a marked difference in the lives of poor minority youngsters -- not just while they are in school but for decades afterward...

By almost any measure we might care about -- education, income, crime, family stability -- the contrast with those who didn't attend Perry is striking. When they were 27, the preschool group scored higher on tests of literacy. Now they are in their 40's, many with children and even grandchildren of their own. Nearly twice as many have earned college degrees (one has a Ph.D.). More of them have jobs: 76 percent versus 62 percent. They are more likely to own their home, own a car and have a savings account. They are less likely to have been on welfare. They earn considerably more -- \$20,800 versus \$15,300 -- and that difference pushes them well above the poverty line...

The newest report attaches a dollar-and-cents figure to this good news. Economists estimate that the return to society is more than \$250,000 (calculated in 2000 dollars) on an investment of just \$15,166 -- that's 17 dollars for every dollar invested.

While the positive long-term impact of high-quality child-care services is only now becoming understood, demand for these programs has never been greater. Meanwhile, costs are rising. According to data provide by the Children's Defense Fund (2001), the average cost for preschool age center-base care ranges from \$4,000 to \$6,000 per year, with infant care as much as twice that range. The cost crunch facing lower-income families is illustrated graphically in Figure 1. As shown, families with the highest incomes spend on average \$89 per week on child care, almost 1.5 times as much as families with the lowest incomes, who spend \$64 on average. But these higher expenditures represent just 5 percent of their total income, while the poorest families spend over 29 percent of their income on child care, about 5 times greater on a proportionate basis.





#### Methodology Overview

For the original study, TXP developed a model of the economic effects of a hypothetical program that would extend child-care benefits to the families of all children currently on waiting lists for such services. The benefits analysis considered only the direct and indirect economic benefits resulting from increased earnings and employment, without accounting for any short or long-term productivity improvements or social benefits. In contrast, the full costs of providing child care were reflected in the analysis.

To provide a more complete picture regarding the importance of public funding for child-care services in San Antonio, this study update incorporates the Head Start program. Currently, 6,789 children are participating in the Head Start program. Funding for Head Start is divided between the federal government and local contributions (i.e., cash or in-kind contributions). The total San Antonio Head Start program budget is \$57.3 million. In addition, a new requirement of the Alamo Child Care Delivery System (CCDS) program is that families pay for a portion of the child care costs based on gross family income. The average CCDS family contributes \$121 per month for child-care services. Currently, 9,617 San Antonio area children are participating in the CCDS program. The total CCDS program budget, including family contribution, is \$47.4 million.

The key assumptions and parameters underlying the economic impact update are as follows:

- All of the families that will benefit presently have no labor market participation. Upon receipt of funding, one adult member of each beneficiary family will obtain a full-time job.
- In the original study, it was assumed that new workers will receive an average wage of \$6.28 per hour. For a 34-hour workweek, this amounts to \$11,103 per year in direct earnings. A number of studies have analyzed the impact of job training and other work transition programs aimed at helping people leave welfare. The wage rates for participants in these programs vary by location, job type, and training program. In general, most studies reference a wage rate of \$6 to \$10 per hour for former welfare recipients. Since not all people participating in the San Antonio publicly supported child care programs will take part in job training or placement programs, TXP has used an average wage of \$6.28 or \$11,103 per year consistent with the original study.
- A recent count showed some 4,214 children on the waiting list in San Antonio to receive public child-care support (Head Start and CCDS). Assuming an average of 1.7 children per household, the program would result in as many as 2,479 new workers.
- The increased earnings and employment levels would have indirect or secondary effects governed by a regional input-output model not discussed in detail here. The multipliers derived from that model for earnings and jobs are 1.850 and 1.537, respectively.

- The overall increased earnings would generate additional local taxes at the rate of 8.57 percent. This figure is derived from the TXP/CUPR San Antonio Cost-Benefit Model.
- The cost of child-care services is divided into three groups: federal government, local government, and family participants. The cost level selected is based on an estimated average predicated on the existing cost structure per child partaking in CCDS or the Head Start program. The average per family cost of publicly support child-care services in San Antonio, including family contribution, is \$6,380. Using the current cost allocation formula, 12% of this amount would be paid by the City of San Antonio, 80% by the federal government providing, and 8% by parents.

Economic & Fiscal Impact of Expanded Access to Child-Care Services in San Antonio
The basic assumptions and parameters underlying this model are summarized in Table 1. The
results of this restricted cost-benefit analysis are presented in Table 2.

Table 1				
Summary of Model Assumptions				
Annual Cost per Child:				
Total	\$6,380			
Local Share (12%)	\$766			
Federal Share (80%)	\$5,104			
Family Share (8%)	\$510			
Economic Multipliers:				
Earnings	1.850			
Employment	1.537			
Total Local Effective Tax Rate:	8.57%			
Number of Beneficiary Children: 4,214				
Number of Beneficiary Families: 2,479				
Average Salary:	\$11,103			

Under the conditions described here, assuming full participation of all potential child-care recipients and the ability to obtain federal matching funds, the total annual cost to the City would be approximately \$3.2 million. But as Table 2 shows, this money would be well spent. In the aggregate, after accounting for both direct and indirect earnings effects, total earnings would rise by more than \$50.9 million per year. As a result, annual City tax revenues would increase more than \$4.4 million, resulting in a net annual "profit" from "subsidizing" child care of about \$1.3 million per year.

The employment consequences of this program would also be appreciable. Employment for the 2,479 direct beneficiaries would be supplemented by an additional 1,331 jobs created indirectly by the expenditures of direct beneficiaries. Persons who would otherwise be receiving public assistance of some type, either freeing up those funds for other needy persons or reducing government expenditures will fill many of these secondary jobs. On average, for every two

persons who are able to gain employment because of the extension of child-care benefits, one other person can enter the labor force or leave unemployment rolls.

Table 2					
Summary of Model Results					
Direct Economic Effects:					
	Earnings	\$27,522,477			
	Employment	2,479			
Indirect Economic Effects:					
	Earnings	\$23,392,454			
	Employment	1,331			
Total Economic Effects:					
	Earnings	\$50,914,930			
	Employment	3,810			
Additional Local Tax Receipts:					
	Total	\$4,363,410			
	Per Child				
	Per New Job	\$1,145			
Net Local Fiscal Bene	Net Local Fiscal Benefits:				
	Total	\$1,137,017			
Per Child		\$459			
	Per New Job	\$298			
Local Return on Investment:					
	Per Child	60%			
	Per New Job	39%			

The distribution of projected earnings and employment gains across economic sectors is presented in Table 3. As expected, the lion's share of these gains will occur in the Trade and Services sectors, which jointly account for almost 90 percent of the jobs added and over 84 percent of additional earnings.

Table 3           Economic Impacts of Child-Care Investment by Sector				
Sector:	Number of Jobs	Earnings (\$millions)	Percent of Jobs	Percent of Earnings
Agriculture	61	\$0.58	1.6%	1.1%
Mining	4	\$0.16	0.1%	0.3%
Construction	43	\$0.84	1.1%	1.7%
Manufacturing	104	\$2.38	2.7%	4.7%
T-C-U	70	\$2.21	1.8%	4.3%
Trade	2,125	\$24.59	55.8%	48.3%
F-I-RE	132	\$2.39	3.5%	4.7%
Services	1,271	\$17.76	33.4%	34.9%
Totals	3,809	\$50.91	100.0%	100.0%

# Public Funding of Child-Care Services: Subsidy or Human Capital Investment?



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### **Overview**

Almost 3,000 San Antonio children are on waiting lists to receive public funding for child-care services. Many if not most of the families of these children, especially those headed by single parents, are unable to find gainful employment because of prohibitive costs of childcare. More than willing to make the transition from welfare to work, they are stymied by the fact that welfare pays more than their net earnings from work would be after paying for child care. At the same time, labor markets throughout the San Antonio area are tight, suggesting no lack of job opportunities.

The principal purpose of this report is to demonstrate that public assistance to these families in obtaining child care services is not simply justified on humanitarian grounds, but actually more than pays its own way through local economic stimulus and the resulting increased tax revenues to the City of San Antonio. This result is predicated solely upon the direct and indirect earnings consequences of removing the child-care cost impediment to employment. While the full costs of childcare are reflected in this analysis, no consideration is given to many other tangible and intangible benefits of increased access to childcare and higher labor force participation rates. Despite this restricted focus, the City of San Antonio can expect to earn a simple annual return of well over 56 percent on public investment in childcare. In other words, not only will the program cover its own incremental costs, but the community will realize 56 cents in additional tax revenue for each dollar directly expended on providing child care to those cannot presently afford it.

Viewed in this light, increased funding for childcare is not an unhealthy expansion of the local welfare state. Rather, it is a prudent - and highly remunerative – investment in creating additional economic opportunities for San Antonio residents. This kind of "win-win" opportunity is rare in most public policy and finance settings, and should not be allowed to pass.

The following section briefly discusses the substantial financial obstacles to unassisted purchase of adequate child-care services for low-income families, and their consequent lower utilization rates. Section 3 reviews the major categories of economic and social benefits that an increasing number of research studies attribute to expanded access to quality child-care programs. Section 4 shows empirically how the City of San Antonio and its residents can jointly benefit from expanded child-care funding, and Section 5 presents conclusions and recommendations.

### **Child-Care Costs and Utilization Rates**

The costs of childcare vary widely across the nation, with the national average for full-time, high quality care in the range of \$4,000 to \$5,000 per year. Costs in large, economically booming metropolitan areas are typically much higher than this, however, as a result of conventional demand and supply forces. At present, lower-income groups are increasingly being squeezed out of the market for affordable and adequate child-care programs.

Ideally, parents would choose child-care facilities that are close to their home or workplace, but these are increasingly difficult to find. Economic growth attracts both population and business to urban centers. Greater demand for childcare alone would tend to drive up prices at nearby, space-limited facilities. Many inner-city facilities have little or no room for expansion, and face ever-rising rental costs. They may even be unable to remain at their current locations as businesses willing to pay higher rents compete for lucrative central locations. In some cities, convenient child-care facility space has become so scarce that prospective parents have taken to reserving slots long before their anticipated child is even conceived. Naturally, as these factors combine to drive prices up, access to convenient and adequate childcare more and more is limited to those with higher incomes.

The cost crunch facing lower-income families is illustrated graphically in Figure 1. As shown, families with the highest incomes spend on average \$91.93 per week on child care, almost twice as much as families with the lowest incomes, who spend \$47.29 on average. But these higher expenditures represent just 5.7 percent of their total income, while the poorest families spend over 25 percent of their income on child care, about 4.5 times greater on a proportionate basis. It is not surprising, then, that less than 40 percent of the poorest families actually purchase child-care services. This percentage rises steadily with income, reaching almost 70 percent for the most affluent families.

A related point concerns variations in the quality of childcare provided to children from different income groups. Lower-income classes typically have a higher proportion of part-time and temporary workers. This tends to reduce the amount of time these children require outside care, and the lower average prices paid by poorer families no doubt reflect this reduction to some extent. But a good portion of these cost differences is also due to a lower quality childcare experience for the poorer child – fewer and less-trained workers, reduced access to educational materials and learning opportunities, and the like. In the long haul, these kinds of differences can tend to further widen the already perceptible gap in learning opportunities for children from lower-income families.

## **Theoretical Benefits of Child-Care Services**

Making quality childcare available to more people can provide a wide array of benefits to society. At a highly aggregated level, these benefits can be separated into three types, although they are clearly inter-related: 1) economic benefits; 2) social benefits; and 3) avoided or redirected costs. As with many public policy programs, some of these are more easily quantified than others, but the magnitudes of these "intangible" or "nonquantifiable" benefits clearly are substantial.

#### 3.1 Economic Benefits

The most visible and easily quantified benefits of public child-care funding are direct and indirect economic benefits. These are measured by the earnings and employment increases that result from alleviating cost barriers to employment. Direct benefits here are related to the increased earnings and employment realized by program beneficiaries. Indirect benefits arise from the second-level earnings and jobs produced by the increased demand for goods and services. These are the only kinds of benefits factored into the analysis below.

Quality child-care services can also enhance the productivity of the labor force. Workers who are concerned about the status of their children during the workday may not pay as close attention to the task at hand as those who are more comfortable with their child-care arrangements. Such workers are also more likely to take unscheduled time away from the job to attend to minor problems their children are encountering.

#### 3.2 Social Benefits

The child-care environment need not and should not be a holding pen for children while their parents work. A substantial amount of sociological research suggests that early introduction of children to social settings such as they experience in childcare makes for much better adapted adolescents, both in terms of socialization and also cognitive functioning. Multi-cultural settings are particularly effective in producing tolerance, acceptance, and even appreciation of cultural diversity. The child-care environment can also substantially ease the transition of younger children into the educational system, and there is growing evidence that the earlier the learning experience begins for children, the more able they are to take advantage of education.

Although these factors are typically considered to be "social" in nature, they can have profound potential future economic impacts. For one thing, children who are more receptive to schooling in the future likely will make for a better-trained and more productive labor force.

#### 3.3 Avoided/Redirected Costs

Many of the beneficiaries of a publicly funded child-care program will no longer need the same level of social services that they were receiving prior to employment. The public funds that were used to provide these additional services could be reduced, used to meet excess demand for the same kinds of services, or transferred to other programs. However these funds are used,

they will provide benefits that would otherwise be unavailable without the child-care funding program.

# **Economic & Fiscal Impact of Expanded Access to Child Care in San Antonio**

This section presents a simple economic model of the economic effects of a hypothetical program that would extend child-care benefits to the families of all children currently on waiting lists for such services. The benefits analysis provided here considers only the direct and indirect economic benefits resulting from increased earnings and employment, without accounting for any short or long-term productivity improvements or social benefits. In contrast, the full costs of providing childcare are reflected in the analysis. The key assumptions and parameters underlying this economic model are as follows:

- All of the families that will benefit presently have no labor market participation. Upon receipt
  of funding, one adult member of each beneficiary family will obtain a full-time job. (The
  validity of these two assumptions is not critical to the validity of the overall model, which is
  based on a flow measure of returns from investing in individuals who do meet these
  assumptions.)
- These new workers will receive an average wage of \$6.28 per hour, which is the level found by a current TDHS survey of workers who had recently left welfare. For a 34-hour workweek (per the same study), this amounts to \$11,103 per year in direct earnings.
- A recent count showed some 2,870 children on the waiting list in San Antonio to receive public child-care support. Assuming an average of 1.5 children per household, the program would result in as many as 1,913 new workers.
- The increased earnings and employment levels would have indirect or secondary effects governed by a regional input-output model not discussed in detail here. The multipliers derived from that model for earnings and jobs are 1.850 and 1.537, respectively.
- The overall increased earnings would generate additional local taxes at the rate of 8.57 percent. This figure is derived from the TXP/CUPR San Antonio Cost-Benefit Model.
- All of the costs of the program will be provided from public funds. The cost level selected is that which would be sufficient to provide the level and quality of care presently enjoyed by families in the \$15-36,000 income bracket. This equates to an average annual cost of approximately \$3,000 per program beneficiary, based on a 50-week work year and an average weekly cost of about \$60, as shown in Figure 1. Using the current cost allocation formula, 37.55% of this amount would be paid by the City of San Antonio, with the federal government providing the remainder.

The basic assumptions and parameters underlying this model are summarized in Table 1. The results of this restricted cost-benefit analysis are presented in Table 2.

Table 1				
Summary of Model Assumptions				
Annual Cost per Participant:				
Total	\$3,000			
Local Share (33.75%)	\$1,127			
Federal Share (66.25%)	\$1,874			
Economic Multipliers:				
Earnings	1.850			
Employment	1.537			
Local Effective Tax Rate: 8.57%				
Number of Beneficiary Families: 1,913				
Average Salary: \$11,103				

Judging from these results, such a program would be highly advantageous to all residents of San Antonio, not just the immediate beneficiaries. Under the conditions described here, assuming full participation of all potential child-care recipients, the total annual cost to the City would be somewhat less than \$2.2 million. But as Table 2 shows, this money would be well spent. In the aggregate, after accounting for both direct and indirect earnings effects, total earnings would rise by more than \$39 million per year. In consequence, annual City tax revenues would increase more than \$3.3 million, resulting in a net annual "profit" from "subsidizing" child care of about \$1.1 million per year.

The employment consequences of this program would also be appreciable. Employment for the 1,913 direct beneficiaries would be supplemented by an additional 1,027 jobs created indirectly by the expenditures of direct beneficiaries. Persons who would otherwise be receiving public assistance of some type, either freeing up those funds for other needy persons or reducing government expenditures will fill many of these secondary jobs. On average, for every two persons who are able to gain employment because of the extension of child-care benefits, one other person can enter the labor force or leave unemployment rolls.

Table 2				
Summary of Model Results				
Direct Economic Effec				
	Earnings	\$21,240,116		
	Employment	1,913		
Indirect Economic Effe	ects:			
	Earnings	\$18,052,824		
	Employment	1,027		
Total Economic Effect	s:			
	Earnings	\$39,292,939		
	Employment	2,940		
Additional Local Tax F	Receipts:			
	Total	\$3,367,405		
	Per Participant \$1,760			
	Per New Job	\$1,145		
Net Local Fiscal Benefits:				
	Total	\$1,211,454		
	Per Participant	\$633		
	Per New Job	\$412		
Local Return on Investment:				
	Per Participant	56.2%		
	Per New Job	36.6%		

One significant factor that has been excluded from this model is the effect of the aggregate "subsidy" itself on the local economy. This amount, totaling some \$5.7 million per year in the example here, is not money down the drain. It represents increased earnings for local child-care providers, who in turn will increase their expenditures in the local economy. With the same earnings multiplier, the total additional local economic stimulus provided by these funds would exceed \$10.6 million, providing the City with another \$910,000 in tax revenues annually. The breakeven marginal tax rate for the federal government, again assuming generously that 50% of the additional earnings is deductible, would then drop to about 11 percent.

As impressive as these aggregate statistics are, it is still instructive to look at the economic performance of this program on a normalized basis. For each \$11,100 job made possible by the City at a cost of \$1,127 per year for child care, additional total local tax revenues of \$1,760.27 would be produced annually, not just by program participants themselves, but also by those who fill the jobs secondarily generated by their increased earnings. This amounts to a rather healthy return on investment of 56 percent. Indeed, if a current part-time worker could avail themselves of this program and increase earnings by as little as \$7,100 per year by working more, this would still represent a break-even proposition for the City.

The distribution of projected earnings and employment gains across economic sectors is presented in Table 3. As expected, the lion's share of these gains will occur in the Trade and

Services sectors, which jointly account for almost 90 percent of the jobs added and over 84 percent of additional earnings.

Table 3  Economic Impacts of Child-Care Investment by Sector				
Sector:	Number of Jobs	Earnings (\$millions)	Percent of Jobs	Percent of Earnings
Agriculture	47	\$0.451	1.6%	1.1%
Mining	3	\$0.124	0.1%	0.3%
Construction	33	\$0.649	1.1%	1.7%
Manufacturing	80	\$1.835	2.7%	4.7%
T-C-U	54	\$1.704	1.8%	4.3%
Trade	1,640	\$18.977	55.8%	48.3%
F-I-RE	102	\$1.841	3.5%	4.7%
Services	981	\$13.712	33.4%	34.9%
Totals:	2,940	39.293	100.0%	100.0%



## **Conclusions and Recommendations**

Insofar as labor force participation is limited by unavailable or unaffordable childcare, cities like San Antonio with growing economies and tight labor markets are presented with a significant opportunities. Relatively modest investments in funding childcare not only pay for themselves, but also produce substantial returns on those investments.

City leaders can take advantage of these opportunities in a number of ways. The program examined here focused on a demand-side strategy - providing funds to purchase child-care services. While the analysis assumed that beneficiaries were unemployed prior to receipt of funding, it also showed that part-time and temporary workers who were able to increase their earnings by as little as \$600 per month with child care could do so at no net cost to the City of San Antonio.

Supply-side strategies are also available and desirable. Programs that would increase the supply of childcare would tend to reduce the market-clearing price of these services. This would make them more affordable to lower-income groups and reduce the amount of any continued subsidy that would be required. Such programs would include efforts to help existing providers expand their capacity as well as the entry of new suppliers.

Quality-enhancement initiatives could also be funded from the proceeds of a direct subsidy program. Children exposed to higher quality child-care environments are less prone to the kinds of behaviors that lead to future problems with juvenile delinquency and crime. They also are better adapted to learning environments and derive greater benefits from the educational system, leading to considerable long-term benefits.

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